

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-13 (Canceled).

Claim 14 (New): A recentering device for a rotor shaft for recentering a rotor shaft relative to an axis X of a stator structure in an event of decoupling caused by excessive imbalance, said shaft, in normal operating conditions, lying on the axis X and being radially supported by a bearing support disposed in a bore of the axis X in said stator structure, said bearing support having an outside diameter that is smaller than a diameter of said bore, to enable said bearing support to orbit about the axis X in the event of decoupling, said bearing support being connected to the stator structure by radially fusible elements, said device comprising:

means for recentering the bearing support after decoupling,

wherein the recentering means of the bearing support comprises means for generating a movement in precession by said bearing support in a direction contrary to a direction of its orbits traveled after decoupling, and a plurality of devices for decreasing permitted clearance of said bearing support relative to the axis X, said devices for decreasing clearance being arranged regularly around the axes of the two parts constituted by the stator structure and the bearing support, and each part including a first ramp provided on one of said two parts and a protuberance provided on the other of said two parts, said protuberance being, in normal operating conditions, radially spaced apart from said first ramp and configured to come into contact with said first ramp during the movement in precession of said bearing support.

Claim 15 (New): A device according to claim 14, wherein all the protuberances are configured to be in contact with the first ramps at a same time.

Claim 16 (New): A device according to claim 14, wherein each first ramp has a profile of an involute to a circle, and two adjacent first ramps are connected by a radial shoulder.

Claim 17 (New): A device according to claim 16, wherein each first ramp has a profile of an Archimedes spiral.

Claim 18 (New): A device according to claim 14, wherein the protuberances are made in a form of blocks.

Claim 19 (New): A device according to claim 14, wherein each protuberance is formed by an end portion of a second ramp, said second ramp having a profile similar to a profile of the associated first ramp.

Claim 20 (New): A device according to claim 14, wherein each first ramp and the protuberance are made of metal.

Claim 21 (New): A device according to claim 20, wherein each protuberance is located, in normal operating conditions, in a position radially spaced apart from the associated first ramp by a distance that is greater than an expected radial displacement of the bearing support during decoupling.

Claim 22 (New): A device according to claim 19, wherein each first ramp is made of elastomer and the associated second ramp is made of metal and can roll on the first ramp, without sliding, after decoupling, to generate the movement in precession.

Claim 23 (New): A device according to claim 14, wherein the means for generating the movement in precession comprises an elastomer ring secured to the stator structure, said ring surrounding the bearing support and being in permanent contact therewith so that the bearing support can roll without sliding in the bore of said ring after decoupling.

Claim 24 (New): A device according to claim 23, wherein said ring in elastomer is disposed in the bore of the stator structure.

Claim 25 (New): A device according to claim 23, wherein said ring is rigid and is connected to the stator structure by a flexible metal support.

Claim 26 (New): A device according to claim 14, comprising three first ramps and three protuberances.